

BAB IX

KESIMPULAN DAN SARAN

IX. 1. Kesimpulan

Berdasarkan hasil pengamatan selama masa kerja praktek di PT. Dunia Kimia Jaya Gresik, dapat diambil kesimpulan sebagai berikut:

1. Bahan baku proses produksi sodium metabisulfit meliputi sulfur dan *soda ash* diperoleh dari lokal Indonesia.
2. Proses produksi *sodium metabisulphite* terbagi atas beberapa *sector* yaitu *Burning Stove Area*, *Reactor Area*, *Dryer Area*, dan *Waste Water Treatment & Waste Gas Treatment Area*.
3. Untuk menunjang proses produksi, dilakukan pengendalian kualitas terhadap bahan baku, produk utama, dan produk samping.
4. Unit utilitas yang digunakan adalah unit penyediaan air, unit penyediaan listrik, dan unit pengolahan limbah padat, cair, dan gas.

IX.2. Saran

Berdasarkan hasil pengamatan selama masa kerja praktek di PT. Dunia Kimia Jaya, saran penulis untuk perusahaan adalah perlunya dilakukan peninjauan kembali terhadap tempat penyimpanan *finish-good* karena masih banyak *finish-good* yang diletakkan pada sisi kanan dan kiri tempat produksi dan ditutup seadanya (dengan terpal) sehingga menyebabkan produk menjadi rusak. Oleh sebab itu perlu dibangun *warehouse* untuk menyimpan hasil produksi.

DAFTAR PUSTAKA

- Beta Control Systems, Inc., 2018, "Iron Solubility in Sulfuric Acid", Beaverton, Oregon, USA.
- Chandra, A., Inggrid, H. M., Verawati, 2013, "Pengaruh pH dan Jenis Pelarut pada Perolehan dan Karakterisasi Pati dari Biji Alpukat", LPPM Universitas Parahyangan, Bandung.
- Chemical Construction Corp., 1976, "Chemical Plant Control Data Handbook", 9th ed., USA.
- Faith, W. L., Keyes, D. B., Clark, R. L., 1975, "Industrial Chemical", 4th ed., John Wiley & Sons, Inc., New York, USA.
- Gámbaro, A., Ares G., Giménez, A., 2006, "Shelf-life Estimation of Apple-baby Food", *Journal of Sensory Studies*, 21: 101-111.
- Grotheer, P., Marshall, M., Simonne, A., 2005, "Sulfites: Separating Fact from Fiction", University of Florida, Gainesville, Florida, USA.
- Habgood, H. W., Painter, T. M., 1972, "The Manufacture of Sodium Pyrosulphite (Sodium Metabisulphite)", Alberta Research Council, Alberta, Canada.
- Ioannou, I., Ghoul, M., 2013, "Prevention of Enzymatic Browning in Fruit and Vegetables", *European Scientific Journal*, 9 (30), 310-341.
- Khoiroh, L. M., Mardiana, D., Sabarudin, A., Ismuyanto, B., 2013, "Synthesis of Hematite Pigments (α -Fe₂O₃) by Thermal Transformations of FeOOH", *J. Pure App. Chem. Res.*, 2 (1), 27-34.
- Kirk, R. E., Othmer, V. R., 1994, "Encyclopedia of Chemical Technology", vol. 11 Flavor Characterization to Fuel Cells, 4th ed., John Wiley & Sons, Inc., New York, USA.
- Lee, C. Y., Smith N. L., 1995, "Minimal Processing of New York Apples", *New York's Food and Life Sciences Bulletin*, 145: 1-11.
- Mesquita, V. L. V., Queiroz, C., 2013, "Enzymatic Browning, Biochemistry of Foods", 3rd ed., Academic Press, Amsterdam, 387-418.
- Mudder, T. I., Botz, M. M., Smith, A., 2001, "Chemistry and Treatment of Cyanidation Wastes", 2nd ed., Mining Journal Books Limited, London, England, UK.
- PubChem, 2005, "Physical Properties of Sodium Metabisulphite", National Center for Biotechnology Information, U.S. National Library of Medicine, Bethesda, USA.
- Rahman, F., 2007, "Pengaruh Konsentrasi Natrium Metabisulfid (Na₂S₂O₅) dan Suhu Pengeringan Terhadap Mutu Pati Biji Alpukat (*Persea americana* Mill)", Skripsi, Universitas Sumatera Utara, Medan.
- Sapers, G. M., 1993, "Browning of Foods: Control by Sulfites, Antioxidants, and Other Means", *Scientific Status Summary, Food Technology*, 47, 75-84.
- Selwyn, S., Tse, S., 2008, "The Chemistry of Sodium Dithionite and its Use in Conservation", vol. 9 *IIC Reviews in Conservation*, London.
- Seyler, J. K., Thornton, W. E., Householder, M. K., 1974, "Sulfuric Acid and Ferrous Sulfate Recovery From Waste Pickle Liquor", Office of Research and Development U.S. Environmental Protection Agency, Washington, D.C., USA.
- Shurvell, G., 2011, Personal Communication, Department of Art Conservation, Queen's University, Kingston, Ontario.
- Tan, T. C., Cheng, L. H., Bhat, R., Rusul, G., Easa, A. M., 2015, "Effectiveness of Ascorbic Acid and Sodium Metabisulfite as Anti-browning Agent and Antioxidant on Green Coconut Water (*Cocos nucifera*) Subjected to Elevated Thermal Processing", *International Food Research Journal*, 22 (2), 631-637.